

**Docket No. 39966/LTR/B600**

line 42, delete "baud" and insert -- symbol --;  
line 50, delete "baud" and insert -- symbol --;  
line 52, delete "baud" and insert -- symbol --;  
line 54, delete "baud" and insert -- symbol --;  
line 59, delete "baud" and insert -- symbol --;  
line 64, delete "baud" and insert -- symbol --;

line 66, delete "baud" and insert -- symbol --.

Page 11, line 2, delete "baud" and insert -- symbol --;  
line 15 and 16, delete "baud" and insert -- symbol --;  
line 30, delete "baud" and insert -- symbol --;  
line 44, delete "baud" and insert -- symbol --.

Page 12, line 65, delete "baud" and insert -- symbol --.

Page 13, line 33, delete "baud" and insert -- symbol --.

**In the Claims:**

CANCEL CLAIMS 1-33 AND 41-144

Add the following new claims:

1 -- 145. An apparatus that is adapted to be coupled to at least one pair of twisted wires  
2 that carry a multi-level signal, comprising:  
3 an analog to digital converter for digitally converting the multi-level signal at  
4 a particular rate;  
5 a timing recovery circuit for regulating the particular rate at which said analog  
6 to digital converter converts the multi-level signal; and,  
7 a digital adaptive equalizer for receiving the digitally converted multi-level  
8 signal and selecting one of a plurality of levels. --

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1     --     146.   The apparatus of claim 145, further comprising an automatic gain control circuit  
2     coupled to said analog to digital converter. --

3     --     147.   The apparatus of claim 145, further comprising a decoder circuit coupled to said  
4     digital adaptive equalizer. --

1     --     148.   The apparatus of claim 147, further comprising a media access controller  
2     coupled to said decoder circuit. --

1     --     149.   The apparatus of claim 145, wherein said digital adaptive equalizer includes a  
2     feedforward equalizer, a data slicer and a decision feedback equalizer. --

1     --     150.   The apparatus of claim 145, wherein said timing recovery circuit regulates the  
2     particular rate in accordance with a product of a plurality of peak signal samples. --

1     --     151.   An apparatus that is adapted to be coupled to at least one pair of twisted wires  
2     that carry a multi-level signal transmitted at a transmission rate of at least 25 megasymbols  
3     per second, comprising:

4             an analog to digital converter that is responsive to the multi-level signal  
5     transmitted at the transmission rate of at least 25 megasymbols per second;  
6             a clock recovery circuit coupled to said analog to digital converter; and,  
7             a digital adaptive equalizer coupled to said analog to digital converter. --

1     --     152.   The apparatus of claim 151, further comprising an automatic gain control circuit  
2     coupled to said analog to digital converter. --

1     --     153.   The apparatus of claim 151, further comprising a decoder circuit coupled to said  
2     digital adaptive equalizer. --

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1 -- 154. The apparatus of claim 153, further comprising a media access controller  
2 coupled to said decoder circuit. --

1 -- 155. The apparatus of claim 151, wherein said digital adaptive equalizer includes a  
2 feedforward equalizer, a data slicer and a decision feedback equalizer. --

1 -- 156. The apparatus of claim 151, wherein said timing recovery circuit regulates the  
2 particular rate in accordance with a product of a plurality of peak signal samples. --

1 -- 157. An apparatus that is adapted to be coupled to at least one pair of twisted wires  
2 that carry a multi-level signal, comprising:  
3 an analog to digital converter;  
4 a clock recovery circuit coupled to said analog to digital converter; and,  
5 a digital adaptive equalizer coupled to said analog to digital converter. --

1 -- 158. The apparatus of claim 157, further comprising an automatic gain control circuit  
2 coupled to said analog to digital converter. --

1 -- 159. The apparatus of claim 157, further comprising a decoder circuit coupled to said  
2 digital adaptive equalizer. --

1 -- 160. The apparatus of claim 159, further comprising a media access controller  
2 coupled to said decoder circuit. --

1 -- 161. The apparatus of claim 157, wherein said digital adaptive equalizer includes a  
2 feedforward equalizer, a data slicer and a decision feedback equalizer. --

1 -- 162. The apparatus of claim 157, wherein said timing recovery circuit regulates the  
2 particular rate in accordance with a product of a plurality of peak signal samples. --

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- 1 -- 163. A method for recovering a multi-level signal transmitted on at least one pair of  
2 twisted wires, comprising:  
3 converting the multi-level signal to a digital signal at a particular rate;  
4 regulating the particular rate of conversion;  
5 equalizing the digital signal; and,  
6 selecting one of a plurality of levels based on the digital signal. --
- 1 -- 164. The method of claim 163, wherein the particular rate is regulated in accordance  
2 with a product of a plurality of peak signal samples. --
- 1 -- 165. The method of claim 163, wherein the particular rate is at least 25 megasymbols  
2 per second. --
- 1 -- 166. The method of claim 163, decoding the selected level. --

Respectfully submitted,

CHRISTIE, PARKER & HALE, LLP

By



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